

AVRed-ES100

EtherSound ES100 Redundant Links for multichannel audio networking

AVRed-ES100 Overview

AVRed-ES100 is an EtherSound ES100 redundant links management device in a 19" 1U rack box for safety audio distribution over Ethernet with ultimate low propagation delay.

AVRed-ES100 secures an EtherSound connection with 2 redundant links A/B and automatic real time measurement of communication quality as well as 4 samples latency switch on the more accurate link. AVRed-ES100 can work in pair with another AVRed-ES100 unit for very low propagation delay or placed after a standard Ethernet switch for cost sensitive installation.

AVRed-ES100 integrates a DC power supply Aux plug and integrated survey logic selecting the better power supply and able to automatically switch from one to any other in case of failure.

AVRed-ES100 enables network remote installation survey thanks to its native integrated network status and provides a local 3rd port for controlling a complete ES100 network through it.

Mechanical Specifications

19 inches 1U rack box

Key Features

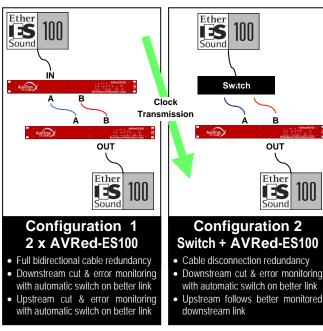
- ES100 network IN/OUT port enabling the device to be used as a duplicate link A/B box or as a merging box
- 2 active redundant links A/B with automatic selection of best link depending on link quality and integrity
- 3rd port for direct remote control or monitor of ES100 network
- Serial RS232 port with virtual tunnelling capability to other serial port on an ES100 network
- Auxiliary DC In connector and integrated redundant power supply management
- Full display on Front Panel of active link A or B and of both link quality and status
- Full bidirectional cable monitoring and redundancy when used as AVRed-ES100 pair
- Cost optimisation when used after an EtherSound compatible switch for cable disconnection and downstream redundancy
- Optional optical version with integrated dual media convertors and front face optical connectors



Applications

- Product for Distribution, routing and control of audio for live and touring installations
 - Live broadcast PA/announcement
 - Live entertainment and concerts
 - TV and Radio Outside Broadcast
 - Itinerant Museums and Theatres
- Product for Transportation public address
 - Train and bus station terminals
 - Airport facilities and audio distribution
 - Cruise Ships paging including onboard entertainment and leisure centre audio facilities
- Product for fixed installation with high quality Audio distribution, paging and zone management:
 - Stadium, Opera, theatre, museum and arts centres
 - Theme parks and resorts
 - Public Address: touring and fixed sound reinforcement
 - Broadcasting
 - Office blocks, corporate boardrooms and buildings PA

Configurations

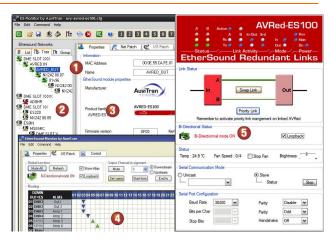


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ESMonitor Software overview

Downloadable on www.auvitran.com web site, AuviTran's ES-Monitor is a Windows Vista/XP application which runs on a remote PC connected to the Primary Master of an EtherSound $^{\text{TM}}$ or the 3^{rd} port of an ES100 network segment, through standard Ethernet connections. ESMonitor offers:

- 1. Automatic discovery of AVRed-ES100 devices and/or any EtherSound™ compatible device on the segment, as well as automatic hierarchical interconnection between them. It enables the use of aliases to identify the modules, network name and group management.
- Monitoring of connection, disconnection and error status for all devices and EtherSound™ links.
- **3.** Automatic identification of the manufacturer ID, the product ID and the Channel I/O.
- Local Patch assignment of any EtherSound device input or output to the required EtherSound™ channel.
- 5. Control of the individual parameters of the AVRed-ES100; the EtherSound IN or OUT port and link A/B activities; the Link A or B in use; the errors detected; The Temperature and Fan Control speed.



Technical Specifications

General		
Size	483 x 253 x 44mm (19' rack / 1U Height)	
Power Consumption	<50 Watts	
Power Supply	100-240VAC 50/60Hz 1.5A Max	
Storage: Temp/Humidity	- 5°C to 70°C / Max. 95% (non-condensing)	
Operating: Temp/Humidity	5°C to 40°C / 5% to 80% (non-condensing)	
Front Panel	Active link running; Quality Status of both Links A and B; Rx and Tx Network & links Activities; In or Out Mode selected for device;	
	Power On Display, Main and Aux Power supply status	
Rear Panel	1xON/OFF switch; 1xIEC Power inlet for main AC power supply; 1x6 pole Euroblock Connector for auxiliary DC power supply;	
	1xDB9 for serial port; Dip switches for setting; 2xBNC for Word Clock; 4xNeutrik Ethercon connectors for network connections	

AVRed-ES100 Features	
3 Operating modes	Mode IN: ES100 IN port to 2 resilient links (A,B)
set by external dip switch	Mode OUT on AVRed-ES100: 2 resilient links coming from an AVRed-ES100 device
	 Mode OUT on Switch: 2 resilient links coming from an Ethernet Switch
EtherSound ES100 Port	IN or OUT port depending of operating mode selected
	3rd port for remote ES100 network control
Resilient Link	A and B with automatic selection of best link
Pass-through Latency	2.8µs in AVRed-ES100 – AVRed-ES100 Mode
	Approx 22µs in Switch – AVRed-ES100 Mode
Link Switching latency	4 samples (83µs at 48 kHz)
Clock	Provides 48 kHz clock when Primary Master

Temp / Fan monitoring	
Temp Monitoring	Network Monitoring of Temperature inside the Box
PSU Monitoring	Network Monitoring of PSU Failure for Main and Aux power supply
2 Fan Control modes	Off for noise reduction
	 Automatically Controlled by internal Temperature

Development and Integration Environment		
OS Supported	Windows Vista or XP	
ES-Monitor	ES-Monitor enables to remotely set, control and monitor an EtherSound network and provides enhanced property pages to manage	
	the AVRed-ES100 specific parameters.	
Remote Network Management	Links status, Temperature and PSU Aux/Main monitoring	
	Fan remote setting and Remote serial port configuration	

Part numbers

AVRed-ES100/EtherCon EtherSound Redundant link with 2 EtherCon Neutrik CAT5e connectors

AVRed-ES100/FoNeutrik EtherSound Redundant link with 2 multimode optical OptiCon Neutrik connectors